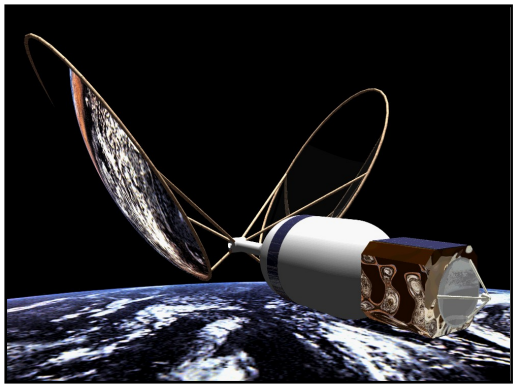
Air Force Research Laboratory
Edwards Air Force Base, CA

Lt Col Tuck Boyson
Deputy Chief, Space & Missile Propulsion

Air Force Research Laboratory Edwards AFB / Propulsion Directorate

MISSION STATEMENT

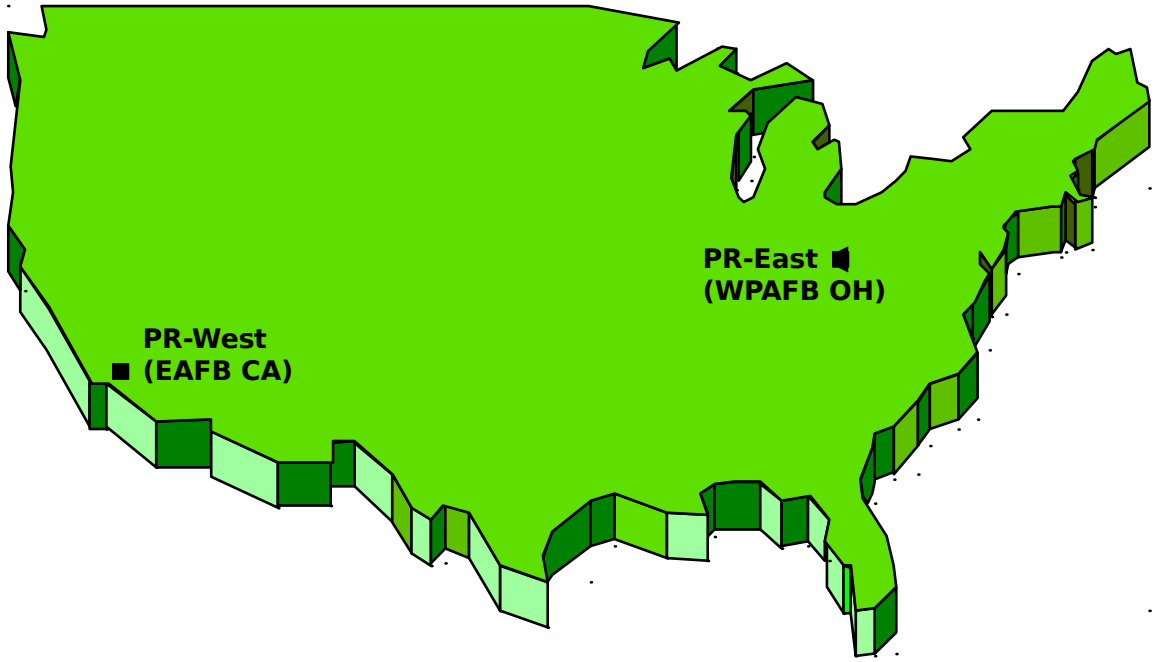
Create and Transition Propulsion and Power Technology for Military Dominance of Air and Space



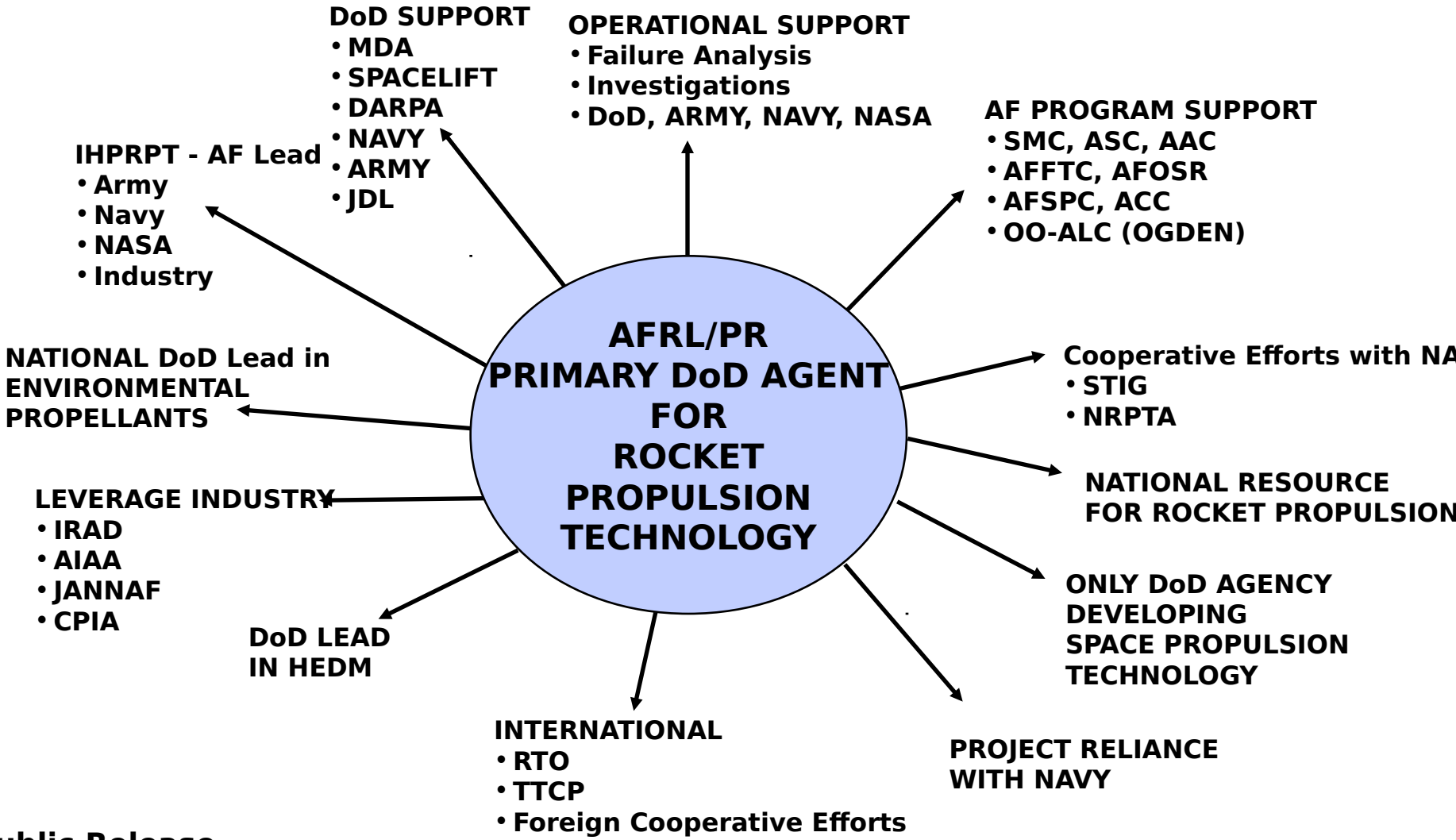
The Propulsion Directorate

One Stop Shopping For:

- **Turbine Engines**
- **Ramjet Engines**
- **Rocket Engines**
- **Combined-Cycle Engines**
- **Satellite Propulsion**
- **Advanced Propulsion**
- **Fuels and Propellants**
- **Lubrication**
- **Aircraft Power**
- **“Special” Power**
- **System Analysis**

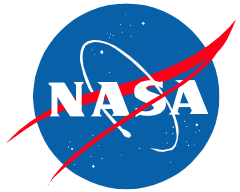


Propulsion Directorate Supports National Rocket Propulsion Needs



Public Release

Integrated High Payoff Rocket Propulsion Technology



Thiokol Propulsion

GENERAL DYNAMICS
Ordnance and Tactical Systems
Aerospace Operations

Partners In Rocket Propulsion Technology Develo

Altitude Facilities
FROM MILLIPOUNDS TO 60,000 LBS THRUST

Facilities

NINETEEN LIQUID ENGINE STANDS TO 8,000,000 LBS THRUST

THIRTEEN SOLID ROCKET MOTOR PADS TO 10,000,000 LBS THRUST

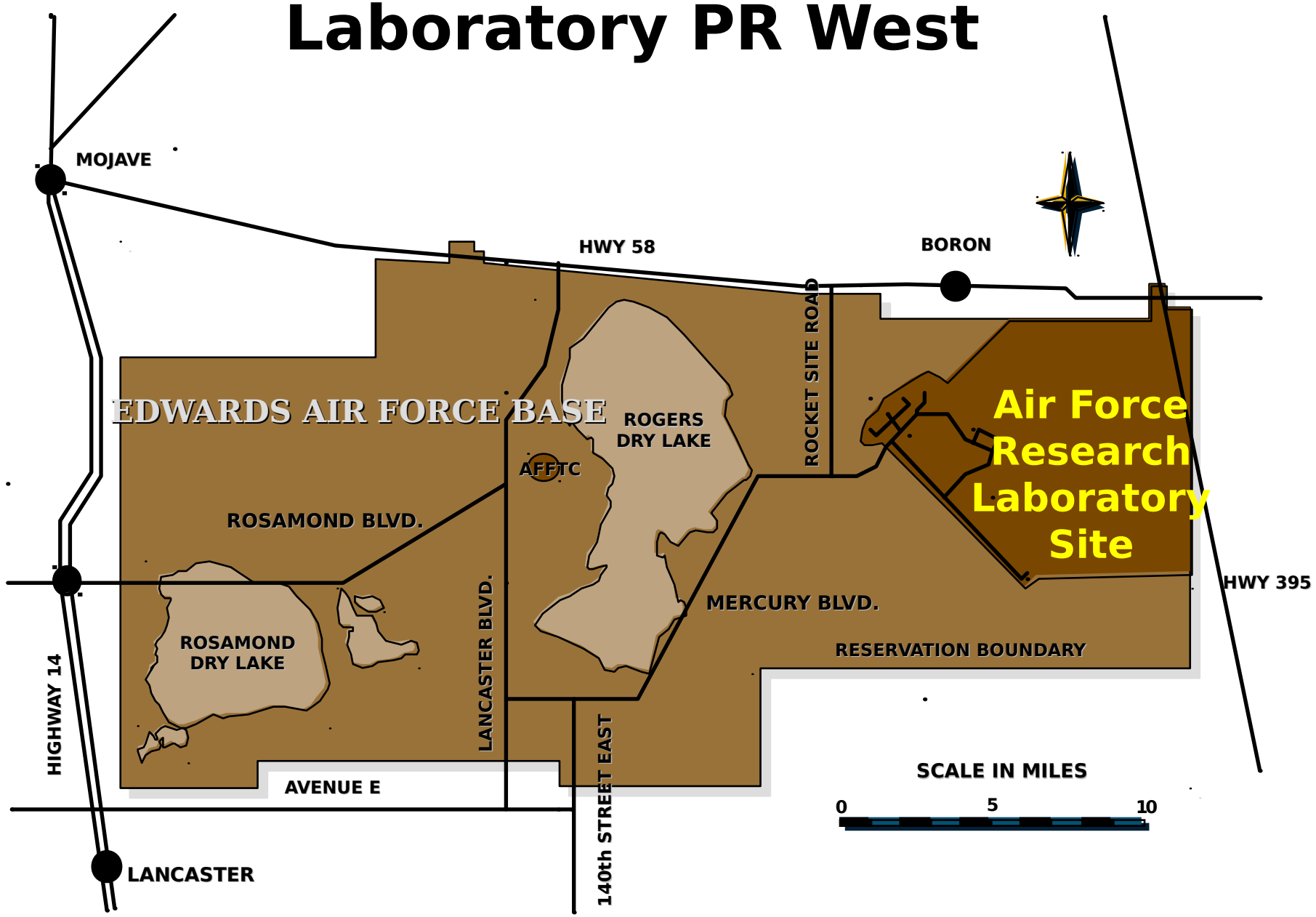
Area 1-120 Facility

X-33 Site

Unique Capability

- **HIGH TECH HUMAN RESOURCE AREA**
- **“PEOPLE” - REAL ROCKET SCIENTISTS**
- **65 SQUARE MILE DEVELOPMENT TEST FACILITY**
  - **Air Quality Constraints Do Not Inhibit Testing**
  - **Noise Abatement Not A Problem**
  - **Wind/Population Corridor Does Not Inhibit Testing**
  - **Environmental Monitor/Control Systems in Place**
  - **Flight Test Center Relation/Support Ongoing**
- **135 MAJOR LABORATORY/ENGINEERING FACILITIES, BUILDINGS**
- **30 MAJOR ACTIVE TEST AREAS/STANDS**
  - **Unique Geophysical Set-up ($1.5B+ INVESTMENT)**

Air Force Research Laboratory PR West



AFRL/PR Edwards Research Site Web Site

http://www.pr.afrl.af.mil

Subcontracts

Welding services	UCI (Bakersfield) ARB (Bakersfield)
Concrete	Service Rock (Palmdale)
Construction Materials	Valley Construction (Lancaster) Camelot (Lancaster) Lancaster Plumbing (Lancaster) McJunkin (Bakersfield) Endura Steel (Lancaster) Desert Industrial (Lancaster) Combs Paint (Palmdale) Airgas (Welding supplies) Palmdale Terry Lumber (Palmdale) Johnstone Supply

Subcontracts

Administrative Materials	Witt's (Palmdale) Bestbuy (Palmdale) East Kern Stationers (Mojave) Franks Radio (Palmdale)
Special Services, such as A/C (Victorville)	Mojave Equipment (Crane Maint.)
Circular Air	Western Equipment (A/C) Lancaster Old McDonald Trucking (Lancaster) Stevens Construction (Lancaster) United Rentals (Lancaster)